

To:

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

United States Patent and Trademark Office (Box PCT)

Crystal Plaza 2 Washington, DC 20231 ÉTATS-UNIS D'AMÉRIQUE

in its capacity as elected Office

Date of mailing (day/month/year)

04 February 1999 (04.02.99)

International application No. PCT/GB98/01624

International filing date (day/month/year) 03 June 1998 (03.06.98)

Applicant's or agent's file reference

REP05729WO

Priority date (day/month/year) 04 June 1997 (04.06.97)

Applicant

WILLIAMS, Stephen, Charles et al

1.	The designated Office is hereby notified of its election made:
	X in the demand filed with the International Preliminary Examining Authority on:
	21 December 1998 (21.12.98)
	in a notice effecting later election filed with the International Bureau on:
2.	The election X was
	was not
	made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

C. Carrié

Telephone No.: (41-22) 338.83.38

Facsimile No.: (41-22) 740.14.35

PCT

NOTICE INFORMING THE APPLICANT OF THE COMMUNICATION OF THE INTERNATIONAL APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

GILL JENNINGS & E Broadgate House 7 Eldon Street London EC2M 7LH **ROYAUME-UNI**

From the INTERNATIONAL BUREAU

Date of mailing (day/month/year)

10 December 1998 (10.12.98)

Applicant's or agent's file reference

REP05729WO

IMPORTANT NOTICE

International application No. PCT/GB98/01624

International filing date (day/month/year)

Priority date (day/month/year)

03 June 1998 (03.06.98)

04 June 1997 (04.06.97)

Applicant

CAMBRIDGE SENSORS LIMITED et al

Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice:

CA, EP, JP, US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:

None

The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on 10 December 1998 (10.12.98) under No. WO 98/55856

REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a demand for international preliminary examination must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))

If the applicant wishes to proceed with the international application in the national phase, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

J. Zahra

Facsimile No. (41-22) 740.14.35 Telephone No. (41-22) 338.83.38

A. CL	ASSIFIC	ATION OF SU	BJECT	MATTER
IPC	6`	G01N27/4	403	G01N27/30

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 6-601N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUM	ENTS CONSIDERED TO BE RELEVANT	
Category ·	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 215 446 A (FUJI PHOTO FILM CO LTD) 25 March 1987 see page 6, line 8 - page 7, line 3; figures 1,2	1,8
Υ	EP 0 095 946 A (FUJI PHOTO FILM CO LTD) 7 December 1983 see page 15, line 19 - line 21	1,8
Α	WO 92 14836 A (ASULAB SA) 3 September 1992 see page 6, line 30 - page 7, line 19; figure 4	1
Α	EP 0 271 102 A (HORIBA LTD) 15 June 1988 see page 5, line 35 - page 6, line 15	1

Y Further documents are listed in the continuation of box C.	X Patent family members are listed in annex.
"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention
"O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family
Date of the actual completion of theinternational search 26 August 1998	Date of mailing of the international search report 02/09/1998
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nt, Fax: (+31-70) 340-3016	Authorized officer Duchatellier, M

INTERNATIONAL SEARCH REPORT

Category '	Citation of document, with indication where appropriate, of the relevant passages	Relevant to claim No.
	55.0.500.000 (M55.55.55.55.55.55.55.55.55.55.55.55.55.	
١	EP 0 593 096 A (MEDISENSE INC) 20 April 1994	1
	see page 6, line 37 - line 56; figures 1,2	
A	US 5 429 735 A (JOHNSON LARRY D ET AL) 4 July 1995 see column 2, line 21 - line 23	6,7

INTERITIONAL SEARCH REPORT

Information on patent family members

ational Application No PCT/GB 98/01624

Patent document cited in search repo	rt	Publication date	i	Patent family member(s)	Publication date
EP 0215446	Α	25-03-1987	JP	62062259 A	18-03-1987
EP 0095946	Α	07-12-1983	 JР	1800242 C	12-11-1993
			JP	3070780 B	08-11-1991
			JP	58211648 A	09-12-1983
			US	4437970 A	20-03-1984
WO 9214836	Α	03-09-1992	FR	2673289 A	28-08-1992
			AT	147107 T	15-01-1997
			AU	656360 B	02-02-1995
			ΑU	1221992 A	15-09-1992
			BG	96988 A	31-03-1994
			CA	2080840 A	22-08-1992
			DE	69216319 D	13-02-1997
		·	DE	69216319 T	03-07-1997
			EP	0526602 A	10-02-1993
			FΙ	924726 A	19-10-1992
			HU	66200 A,B	28-10-1994
			JP	2770250 B	25-06-1998
			PL	169972 B	30-09-1996
			SK	316592 A	12-04-1995
			US	5378628 A	03-01-1995
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			JP	1 850637 C	21-06-1994
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			US 	4872956 A	10-10-1989
EP 0593096	Α	20-04-1994	AU	622196 B	02-04-1992
			AU	3822089 A	01-02-1990
			CA	1313397 A	02-02-1993
			EP	0352138 A	24-01-1990
			JP	211 2 752 A	. 25-04-1990
			US 	5126034 A	30-06-1992
US 5429735	Α	04-07-1995	AU	692861 B	18-06-1998
			AU	2325795 A	11-01-1996

INTERMIONAL SEARCH REPORT

Information on patent family members

utional	Application No
PCT/GB	98/01624

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
US 5429735	A	CA EP JP	2151413 A 0691539 A 8015210 A	28-12-1995 10-01-1996 19-01-1996



PATENT COOPERATION TREATY

PCT

REC'D	13	SEP 1999
WIP	<u>5</u>	PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's	or age	nt's file reference	FOR FURTHER ACTIO	See Notifica	ation of Transmittal of Internation	onal
REP0572	9WC)			Examination Report (Form PC	
Internationa	l appli	cation No.	International filing date (day/	month/year)	Priority date (day/month/year	')
PCT/GB9	8/01	624	03/06/1998		04/06/1997	
Internationa G01N27/4		nt Classification (IPC) or na	tional classification and IPC			
Applicant		· · · · · · · · · · · · · · · · · · ·				
CAMBRII	OGE	SENSORS LIMITED	et al.			
and is	trans	smitted to the applicant a	according to Article 36.		rnational Preliminary Exam	ining Authority
2. This F	REPO	RT consists of a total of	5 sheets, including this co	ver sheet.		
. (s	een a ee R	mended and are the bas	sis for this report and/or she 07 of the Administrative Ins	eets containing re	n, claims and/or drawings v ctifications made before thine PCT).	vhich have is Authority
3. This r	_	contains indications rela	ating to the following items:			
11		Priority			Chadradula I amplicability	
III			pinion with regard to novel	ty, inventive step	and industrial applicability	
IV V	∐ ⊠	Lack of unity of invention Reasoned statement uncitations and explanation		ard to novelty, inve	entive step or industrial app	olicability;
VI		Certain documents cit				
VII	\boxtimes	Certain defects in the i	nternational application			
VIII		Certain observations o	n the international applicati	ion		
Date of sub	missi	on of the demand	D	ate of completion of	f this report	
21/12/19	98				0 8. 09. 99	
		g address of the internation ining authority:	al A	uthorized officer		ESCHISCOES MIENING
<u></u>	Eur D-8	opean Patent Office 0298 Munich		Komenda, P		
	Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465			elephone No. +49 8	9 2399 2777	Der Die

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB98/01624

l. 1	Bas	is c	of th	ne r	epo	rt
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1. This report has been drawn on the basis of (substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.):

	the report since they do not contain amendments.).							
	Description, pages:							
	1-9		as originally filed					
	Clai	ms, No.:						
	8		as originally filed					
	1-7		as received on	14/05/1999	with letter of	12/05/1999		
	Dra	wings, sheets:						
	1/1		as originally filed					
2.	The	amendments have	e resulted in the cancellation of:					
		the description,	pages:					
		the claims,	Nos.:					
		the drawings,	sheets:					
3.		This report has be considered to go l	een established as if (some of) the beyond the disclosure as filed (F	ne amendmei Rule 70.2(c)):	nts had not been made	e, since they have been		
4.	Add	litional observation	s, if necessary:					

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB98/01624

- V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- 1. Statement

Novelty (N)

Yes:

Claims 1-8 Claims

No:

Yes:

Claims 1-8

No: Yes: Claims

Industrial applicability (IA)

Inventive step (IS)

Claims 1-8

Claims

No: C

2. Citations and explanations

see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

INTERNATIONAL PRELIMINARY **EXAMINATION REPORT - SEPARATE SHEET**

Section V:

Reference is made to the following document:

D1 = US-A-5 628 890

Document D1 reveals a device for use in the electrochemical analysis of an N: analyte in a liquid sample and comprises:

a non-conductive substrate (1, reference signs according to figure 1 of D1); a conductive layer (2), deposited on the substrate, in two parts (4, 5), defining a non-conducting gap therebetween;

an analyte-specific reagent (8) coated on the conductive layer, on one side of the gap:

a spacer layer (7) deposited over the conductive layer;

a monofilament mesh (9) coated with a surfactant (column 4, lines 56 to 61), the mesh being laid over the reagent, the reference electrode and the spacer layer; and

a second non-conductive layer (11) adhered to the mesh layer, but not coextensive therewith, thereby providing a sample application area (12).

The difference between the device of D1 and that of claim 1 is that according to the latter the application area is at one edge of the mesh (whereas in D1 the application area is "on top" of the device) (Article 33(2) PCT).

The above distinguishing feature is also present in claims 2 to 8 (Article 33(2) PCT).

IS: Starting from D1, the technical problem to be solved is to provide a device for use in the electrochemical analysis which device allows for sample collection without the need of aiming at the application area.

The solution for said problem is to locate the application area at one edge of the mesh i.e. of the device.

The other documents of the international search report do not disclose devices

where the application area is located at one edge. They all have the application area "on top" of the device onto which a sample solution is dropped. Since, moreover, the above solution is not obvious per se, an inventive activity is acknowledged for claims 1 to 8 (Article 3(3) PCT).

IA: Industrial applicability is also acknowledged (Article 33(4) PCT).

Section VII:

- Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art 1) disclosed in the document D1 is not mentioned in the description, nor is this document identified therein.
- The independent claims are not in the two-part form in accordance with Rule 2) 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document D1) being placed in a preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in a characterising part (Rule 6.3(b)(ii) PCT).
 - If, however, the applicant is of the opinion that the two-part form would be inappropriate, then reasons therefor should be provided in the letter of reply. In addition, the applicant should ensure that it is clear from the description which features of the subject-matter of the independent claims are known from document D1 (see the PCT Guidelines PCT/GL/3 III, 2.3a).
- The features of the device claims are not provided with reference signs placed in 3) parentheses (Rule 6.2(b) PCT).

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CLAIMS

- 1. A device for use in the electrochemical analysis of an analyte in a liquid sample, which comprises:
 - a non-conducting substrate;
- a conductive layer, deposited on the substrate, in two parts, defining a non-conducting gap therebetween;
- an analyte-specific reagent coated on the conductive layer, on one side of the gap;
- a reference electrode on the conductive layer, on the other side of the gap;
 - a spacer layer deposited over the conductive layer;
 - a monofilament mesh coated with a surfactant or chaotropic agent, the mesh being laid over the reagent, the reference electrode and the spacer layer; and
- a second non-conductive layer, adhered to the mesh layer, but not coextensive therewith, thereby providing a sample application area on the mesh.
 - 2. A device according to claim 1, wherein the reagent is free of filler having both hydrophobic and hydrophilic surface regions.
 - 3. A device according to claim 1 or claim 2, wherein the analyte is glucose and the reagent is glucose dehydrogenase.
 - 4. A device according to any preceding claim, wherein the mesh is treated with a surfactant.
 - 5. A device according to any preceding claim, wherein the mesh is additionally coated with a cell lytic agent.
 - 6. A device according to any preceding claim, wherein the conductive layer comprises graphite particles, carbon particles and a polymer binder.
 - 7. A device according to claim 6, wherein the graphite particles have an average size of 1-20 μm and a surface area of 1-50 m²/g, and the carbon particles have an average size of 5-70 nm and a surface area of less than 150 m²/g.

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From the INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To.

GILL JENNINGS & EVERY
Broadgate House
7 Eldon Street
London EC2M 7LH
GRANDE BRETAGNE

RECEIVED

10 SEP 1999

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

GILL JENNINGS & EVERY

Date of mailing (day/month/year)

0 8. 09. 99

Applicant's or agent's file reference REP05729WO

International application No.

International filing date (day/month/year)

Priority date (day/month/year) 04/06/1997

IMPORTANT NOTIFICATION

PCT/GB98/01624

03/06/1998

Applicant

CAMBRIDGE SENSORS LIMITED et al.

- 1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
- 2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
- 3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/

European Patent Office D-80298 Munich

Tel. +49 89 2399 - 0 Tx: 523656 epmu d

Fax: +49 89 2399 - 4465

Authorized officer

Reddy-Lehocki, J

Tel.+49 89 2399-2288







PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

	_	nt's file reference	FOR FURTHER ACTION		ation of Transmittal of International y Examination Report (Form PCT/IPEA/416)
REP0572	9WC)		riellillilai	
Internationa	l appli	cation No.	International filing date (day/mont	th/year)	Priority date (day/month/year)
PCT/GB9	8/01	624	03/06/1998		04/06/1997
G01N27/		nt Classification (IPC) or n	national classification and IPC		
Applicant					
CAMBRI	DGE	SENSORS LIMITED	et al.		
1. This ii and is	nterna trans	ational preliminary exar smitted to the applicant	mination report has been prepare according to Article 36.	ed by this Inte	ernational Preliminary Examining Authority
2. This F	REPC	ORT consists of a total of	of 5 sheets, including this cover	sheet.	•
b	een a	mended and are the ba	ied by ANNEXES, i.e. sheets of t asis for this report and/or sheets 607 of the Administrative Instruc	containing re	on, claims and/or drawings which have ectifications made before this Authority he PCT).
These	ann	exes consist of a total of	of 1 sheets.		
1	Ø	Basis of the report	elating to the following items:		
11			i antinian suith remarks to move the i	nuantiva etar	and industrial applicability
111 IV			opinion with regard to novelty, in	iiveiilive step	and industrial applicability
V	Ø	Reasoned statement		o novelty, inv	ventive step or industrial applicability;
VI		Certain documents c	eited		(X)
VII	×	Certain defects in the	international application		
VIII		Certain observations	on the international application		
Date of sul	omissi	on of the demand	Date (of completion o	of this report
21/12/19	98				0 8. 09. 99
	exam	ng address of the internation	nal Autho	rized officer	September Marie
<u></u>	D-8 Tel	opean Patent Office 0298 Munich . +49 89 2399 - 0 Tx: 5236	656 epmu d	enda, P	(Same Surph
	rax	c: +49 89 2399 - 4465	Telep	hone No. +49	89 2399 2777



International application No. PCT/GB98/01624

1.	Basi	is of	the	re	port
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1. This report has been drawn on the basis of (substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.):

	ine report sind	ce iney u	o not comain amendments.j.			
	Description,	pages:				
	1-9		as originally filed			·
	Claims, No.:			•		
	8		as originally filed			
	1-7		as received on	14/05/1999	with letter of	12/05/1999
	Drawings, sh	neets:				
	1/1		as originally filed			
2.	The amendme	ents have	e resulted in the cancellation	of:		
	☐ the descr	ription,	pages:			
	☐ the claim	ıs,	Nos.:			
	☐ the drawi	ings,	sheets:			
3.			een established as if (some obeyond the disclosure as filed		nts had not bee	en made, since they have been
4.	Additional obs	servation	s, if necessary:			

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB98/01624

- V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- 1. Statement

Novelty (N)

Yes:

Claims 1-8

No:

Claims

Inventive step (IS)

Yes:

Claims 1-8

No:

Claims

Industrial applicability (IA)

Yes:

Claims 1-8

No:

Claims

2. Citations and explanations

see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

INTERNATIONAL PRELIMINARY InteREXAMINATION REPORT - SEPARATE SHEET

Section V:

Reference is made to the following document:

D1 = US-A-5 628 890

N: Document D1 reveals a device for use in the electrochemical analysis of an analyte in a liquid sample and comprises:

a non-conductive substrate (1, reference signs according to figure 1 of D1); a conductive layer (2), deposited on the substrate, in two parts (4, 5), defining a non-conducting gap therebetween;

an analyte-specific reagent (8) coated on the conductive layer, on one side of the gap:

a spacer layer (7) deposited over the conductive layer;

a monofilament mesh (9) coated with a surfactant (column 4, lines 56 to 61), the mesh being laid over the reagent, the reference electrode and the spacer layer; and

a second non-conductive layer (11) adhered to the mesh layer, but not coextensive therewith, thereby providing a sample application area (12).

The difference between the device of D1 and that of claim 1 is that according to the latter the application area is <u>at one edge</u> of the mesh (whereas in D1 the application area is "on top" of the device) (Article 33(2) PCT).

The above distinguishing feature is also present in claims 2 to 8 (Article 33(2) PCT).

IS: Starting from D1, the technical problem to be solved is to provide a device for use in the electrochemical analysis which device allows for sample collection without the need of aiming at the application area.

The solution for said problem is to locate the application area at one edge of the mesh i.e. of the device.

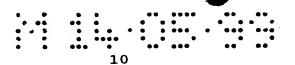
The other documents of the international search report do not disclose devices

where the application area is located at one edge. They all have the application area "on top" of the device onto which a sample solution is dropped. Since, moreover, the above solution is not obvious per se, an inventive activity is acknowledged for claims 1 to 8 (Article 3(3) PCT).

IA: Industrial applicability is also acknowledged (Article 33(4) PCT).

Section VII:

- 1) Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor is this document identified therein.
- The independent claims are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document D1) being placed in a preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in a characterising part (Rule 6.3(b)(ii) PCT).
 - If, however, the applicant is of the opinion that the two-part form would be inappropriate, then reasons therefor should be provided in the letter of reply. In addition, the applicant should ensure that it is clear from the description which features of the subject-matter of the independent claims are known from document D1 (see the PCT Guidelines PCT/GL/3 III, 2.3a).
- 3) The features of the device claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).



CLAIMS

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1. A device for use in the electrochemical analysis of an analyte in a liquid sample, which comprises:

a non-conducting substrate;

a conductive layer, deposited on the substrate, in two parts, defining a non-conducting gap therebetween;

an analyte-specific reagent coated on the conductive layer, on one side of the gap;

a reference electrode on the conductive layer, on the other side of the gap;

a spacer layer deposited over the conductive layer;

a monofilament mesh coated with a surfactant or chaotropic agent, the mesh being laid over the reagent, the reference electrode and the spacer layer; and

a second non-conductive layer, adhered to the mesh layer, but not coextensive therewith, thereby providing a sample application area at one edge of the mesh.

- 2. A device according to claim 1, wherein the reagent is free of filler having both hydrophobic and hydrophilic surface regions.
- 3. A device according to claim 1 or claim 2, wherein the analyte is glucose and the reagent is glucose dehydrogenase.
- 4. A device according to any preceding claim, wherein the mesh is treated with a surfactant.
 - 5. A device according to any preceding claim, wherein the mesh is additionally coated with a cell lytic agent.
 - 6. A device according to any preceding claim, wherein the conductive layer comprises graphite particles, carbon particles and a polymer binder.
 - 7. A device according to claim 6, wherein the graphite particles have an average size of 1-20 μm and a surface area of 1-50 m^2/g , and the carbon particles have an average size of 5-70 nm and a surface area of less than 150 m^2/g .

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-	For receiving Office use only
PCT	1 of feetfulg office use only
	International Application No.
REQUEST	·
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	Applicant's or agent's file reference (if desired)(12 characters maximum) REP05729WO
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WILLIAMS, Stephen Charles	applicant only
P.O. 3559 500 Stone Pine Road	
Half Moon Bay	X applicant and inventor
CA 94019	inventor only (if this check-bax
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The priority of the following	earlier application	ns is hereby cla	aimed:				
Country (in which, or for which, the application was filed)		g Date onth/year)		Applicati	on No.	(onl	Office of filing y for regional or utional application)
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Date of actual receipt of the international application:	ne purported						2. Drawings:
Corrected date of actual re timely received papers or the purported international	drawings comple	r but ting					received:
4. Date of timely receipt of the corrections under PCT Art	he required ticle 11(2):						not received
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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference		f Transmittal of International Search Report
REP05729W0	ACTION (Form PCT/ISA/2)	20) as well as, where applicable, item 5 below.
International application No.	International filing date (day/month/year)	(Earliest) Priority Date (day/month/year)
PCT/GB 98/01624	03/06/1998	04/06/1997
Applicant		
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This International Search Report consists X It is also accompanied by a copy	of a total of3 sheets. y of each priorart document cited in this report.	
1. Certain claims were found un	searchable (see Boy I)	
	searchable (see Box 1).	
2. Unity of invention is lacking(s	see Box II).	
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3. The international application cor international search was carried	ntains disclosure of a nucleotide and/or amino out on the basis of the sequence listing	acid sequence listing and the
filed	with the international application.	
furn	ished by the applicant separately from the inter	national application,
Į L	but not accompanied by a statement to the matter going beyond the disclosure in the	
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Tran	nscribed by this Authority	
	text is approved as submitted by the applicant	
the t	text has been established by this Authority to re	ad as follows:
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5. With regard to the abstract,		
	text is approved as submitted by the applicant	(2/h) by this Authority so it appears in
Box	text has been established, according to Rule 38 III. The applicant may, within one month from the rch Report, submit comments to this Authority.	ne date of mailing of this International
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The figure of the drawings to be publication	shed with the abstract is:	
	uggested by the applicant.	None of the figures.
	ause the applicant failed to suggest a figure.	
beca	ause this figure better characterizes the invention	on.
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A. CLASSIFICATION OF SUBJECT MATTER IPC 6 G01N27/403 G01N27/30

C. DOCUMENTS CONSIDERED TO BE RELEVANT

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 6 - 601N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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	see page 6, line 8 - page 7, line 3; figures 1,2	*
Y	EP 0 095 946 A (FUJI PHOTO FILM CO LTD) 7 December 1983 see page 15, line 19 - line 21	1,8
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Α	EP 0 271 102 A (HORIBA LTD) 15 June 1988 see page 5, line 35 - page 6, line 15	1

X Further documents are listed in the continuation of box C.	χ Patent family members are listed in annex.
 Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filling date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filling date but later than the priority date claimed 	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family
Date of the actual completion of theinternational search	Date of mailing of the international search report
26 August 1998	02/09/1998
Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Duchatellier, M



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